



*Leadership in Innovative Environmental
Cleanup Technology*

Alternative Restoration Technology Team



ARTT is a NAVFAC-chartered workgroup, established to promote and implement the use of cost-effective, innovative technologies and methods in the Navy Installation Restoration (IR) Program.



ARTT's Objectives Are:

- ◆ Identifying barriers that inhibit implementation of innovative technologies and methods.
- ◆ Recommending process changes to eliminate or minimize barriers.
- ◆ Developing procedures and guidance, and recommending policies for implementing innovative technologies and methods.
- ◆ Promoting initiatives and strategies that support use of innovative technologies and methods.
- ◆ Identifying potential sites and innovative technologies for demonstration projects.
- ◆ Improving communication in support of remedial project managers.

ARTT Members Are:

Remedial technical managers (RTMs), remedial project managers (RPMs), and representatives from the Chief of Naval Operations, Commandant Marine Corps, Naval Facilities Engineering Command (NAVFAC), Naval Facilities Engineering Service Center (NFESC), Engineering Field Divisions (EFD), Engineering Field Activities (EFA), and Civil Engineer Corps Officers School (CECOS).

Progress and Accomplishments:

FY94-FY96 (ARTT as Navy Innovative Remediation Technology Working Group - NIRTWG)

- Identified barriers and promoted strategies for implementing innovative technologies in three major areas - **Communications** (establish better training, communications, and technical support), **Regulatory** (promote partnering and other initiatives), and **Policy** (improve budget and funding constraints).
- Introduced and promoted the use of Geostatistics and the DQO planning process within the IR Program for streamlined site investigations.

- Introduced and promoted the use of natural attenuation within the IR program as a viable remedy.
- Introduced original Tiger Team experts to the Navy.
- Identified RPM training needs for inclusion in the NEPPS IR training plan and disseminated to EFDs and EFAs.
- Improved communication between EFDs, EFAs and NFESC on innovative technologies and methods.
- Identified R&D focus areas with potential for significant return in improving efficiency of cleanup projects.
- Provided technical input to the Federal remediation Technology Roundtable Screening Matrix Guide.

FY97-FY98 Accomplishments

ARTT began to focus on implementing practical solutions for critical technology implementation issues. In the process, ARTT highlighted the importance of balancing program execution with quality implementation. Solutions for identified barriers to implementing innovative technologies included:

TRAINING

Barrier: Lack of Adequate Training for RPMs

Solution: ARTT teamed with CECOS to revise current training programs and continues to provide input in the development of new curriculum.

TECHNICAL SUPPORT

Barrier: Lack of Standardized Internal/External Technical Support

Solutions:

- ARTT members share regional quality improvement information and disseminate that information.
- NAVFAC encouraged all EFDs and EFAs to implement in-house technical support for RPMs and other elements of a quality focused system.

- NFESC established Technical Support Representatives (TSRs) assigned to each EFD and EFA. TSRs identify project-specific technical resources at the request of individual RPMs. ARTT also assisted NFESC with clarifying products and services, e.g., centralized contract to facilitate EFD and EFA access to technical experts from multiple organizations.

TECHNOLOGY IMPLEMENTATION

Barrier: Lack of a Technology Transfer Process

Solutions:

- **Demonstration and Evaluation Task Group (RDT&E)** lead by *Andy Del Collo, NAVFAC*, is establishing a procedure linking demonstration and technical evaluation funds with practical site innovative technology demonstrations. One project, a comparison among various technologies to treat VOCs, was funded in 1997. Two additional projects, a nationwide Development of Marine Sediment Toxicity Data for Ordnance Compounds and a phytoremediation project at NAWC Indianapolis, are funded for 1998. These projects, which involve a collaborative effort among NAVFAC, EFDs, EFAs, and NFESC, are demonstrating that future Navy environmental cleanup R&D investments have greater payback when linked directly to practical field applications.

- **RPM Forum Task Group**, lead by *Wanda Holmes, CECOS*, developed the RPM forum for the April 1998 Cleanup Conference to foster RPM communications and “lessons-learned” discussions.

- **Natural Attenuation Protocol Task Group** lead by *Michael Pound, Southwest Division*, is coordinating with industry experts and other Federal agencies (USGS, Air Force, EPA, etc.) to draft a Navy natural attenuation protocol and policy expected in the spring of 1998.

- **Remedial Action Assessment System (RAAS)** Task Group, lead by *Richard Mach, Southwest Division* is reviewing the DOE-developed software package, RAAS, and analyzing ways of making it more Navy RPM user friendly. Final recommendations are due in the summer of 1998.

Other Accomplishments

- Reviewed and helped screen NFESC’s Broad Agency Announcement (BAA) proposals for innovative technologies.
- Served as IR focal point at respective EFDs and EFAs to promote and facilitate RPM access to innovative technologies available for contracting through the BAA process.
- Recognized the value of in-house technical support for RPMs in EFDs and EFAs and promoted its development.
- Recommended improvements to the Tiger Team process.
- Promoted the NAVFAC-wide use of GIS as a means to improve data analysis, data storage, and project decision-making on IR projects.
- Developed short list of recommended technologies for improving efficiency of site investigations and cleanups.
- Served as informal data collection point for specific technical data calls (e.g., for MTBE natural attenuation studies).

ARTT and the Future...

ARTT has established three main focus groups to address on going issues:

- ♦ **IR Quality Focus Group:** Lead – *Mike Maughon – Southern Division*. This focus group will continue to identify new technologies and methods that enhance site restoration effectiveness and efficiency, and to develop and promote smart strategies for successful implementation.

- ♦ **Communications Focus Group:** Lead – *Steve Saepoff, EFA Northwest*. This focus group will work on communications issues by issuing an ARTT newsletter, improving use of the Web, improving interactions with IR managers and RPMs, and improving interactions with other groups and agencies.

- ♦ **Metrics Focus Group:** Lead – *Gil Rivera, EFA West*. This group will establish a set of metrics to track ARTT’s progress in meeting the goals of implementing innovative technologies and methods that protect human health and the environment while reducing program costs.

Points of Contact:

If you are interested in participating in ARTT, contact any of the following team members:

EFA Chesapeake

(202) 685-3303

(202) 685-3281

EFA Northwest

(360) 396-0221

EFA West

(650) 244-2704

(650) 244-2565

LantDiv

(757) 322-4776

(757) 322 4780

NorthDiv

(610) 595-0567 x-146

(610) 595-0567 x-125

PacDiv

(808) 474-4515

(808) 474-4513

SouthDiv

(803) 820-7422

(803) 820-5561

SouthwestDiv

(619) 532-2546

(619) 556-9934

CECOS

(805) 982-2877

CNO

(703) 602-5329

CMC

(703) 696-2138

NAVFAC (RDT&E)

(703) 325-8533

NFESC

(805) 982-5478
